

REMARKS/ARGUMENTS

In the Office action dated June 30, 2004, claims 17 – 29 are allowed, claims 1, 3 – 6, 10, and 12 – 16 are rejected, and claims 2, 7 – 9, and 11 are objected to. Applicants have amended independent claims 7, 9, 10, and 27 and hereby request reconsideration of the application in view of the amended claims and the below-provided remarks.

I. Claim amendments to correct informalities

Claims 7 and 9 are amended to properly introduce the element “orthogonal filters.” Applicants assert that claims 7 and 9 as amended particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claim 27 incorrectly refers to claim 25 when it should refer to claim 26. Accordingly, claim 27 has been amended to refer to claim 26.

The objection to claim 10 is addressed below under the heading “Claim 10.”

II. Claim 1

Claim 1 was rejected under 35 U.S.C. 103(a) as being unpatentable over Gisin et al. (U.S. Pat. No. 5,852,496, hereinafter Gisin) in view of Iwaoka et al. (U.S. Pat. No. 4,856,899, hereinafter Iwaoka). The Office action states that Gisin discloses a light source, a test interferometer, and a computing unit but not a reference interferometer as recited in claim 1. The Office action further states that Iwaoka teaches a reference interferometer and then concludes that it would have been obvious “to replace the light source of Gisin et al (Gisin et al 16) with the tunable laser light source of Iwaoka et al having a reference interferometer (Iwaoka et al Fig. 21).”

Claim 1 is not rendered obvious because Iwaoka does not teach or suggest a reference interferometer

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (MPEP 2143.03) Applicants assert that all of the limitations of claim 1 are not taught or suggested by Gisin in view of Iwaoka because Iwaoka does not teach or suggest a reference interferometer as

recited in claim 1. As stated above, Iwaoka is cited for teaching a reference interferometer that could be combined with the device of Gisin. However, Fig. 21 and the associated text of Iwaoka teach a tunable laser and not a reference interferometer. Specifically, Iwaoka states at col. 3, lines 24 – 25 that “Fig. 21 is a block diagram depicting a third example of a tunable laser” (emphasis added) and at col. 11, line 50 that “Fig. 21 depicts details of another tunable laser 12a.” (emphasis added) That is, Fig. 21 of Iwaoka simply shows a tunable laser. Nowhere in the text related to Fig. 21 of Iwanka is there any mention of a reference interferometer. Additionally, the Office action provides no details as to how or why Fig. 21 of Iwaoka teaches a reference interferometer. Because Iwaoka does not teach or suggest a reference interferometer, Applicants assert that claim 1 is not rendered obvious from Gisin in view of Iwaoka.

III. Claims 3 – 6

Claims 3 – 6 are dependent on claim 1. Applicants assert that claims 3 – 6 are allowable based on an allowable claim 1.

IV. Claim 10

Claim 10 has been amended to correct an error in the claim language. In particular, the phrase “receiving a reference signal and a test optical signal, the reference optical signal being generated by test interferometer” has been amended to recite “receiving a reference optical signal and a test optical signal, the reference optical signal being generated by a reference interferometer.” (emphasis added) From the context of the claim language and the supporting text in the Applicants’ specification, it is clear that the reference optical signal is generated by the reference interferometer not by the test interferometer as erroneously stated in the original version of claim 10. Support for this amendment is found in the specification at page 10, lines 6 – 8 in the sentence “[t]he reference interferometer 106 produces a reference heterodyne beat signal that includes the phase changes caused by the frequency sweep non-uniformity of the tunable laser source.” Further support is found in the detailed description of the reference interferometer at page 10, line 15 to page 11, line 12.

In addition to correcting the error as described above, the amendment to claim 10 also addresses the objection that was noted on page 2 of the Office action. Specifically, the phrase "generated by test interferometer" has been amended as described above to a phrase that is grammatically correct.

As filed, claim 10 was rejected under 35 U.S.C. 102 as being anticipated by Gisin. Applicants assert that amended claim 10 is not anticipated by Gisin because Gisin does not disclose "receiving a reference optical signal and a test optical signal, the reference optical signal being generated by a reference interferometer" as recited in claim 10. Specifically, claim 10 is not anticipated by Gisin because as stated in the Office action, Gisin does not disclose a reference interferometer. Additionally, Applicants assert that amended claim 10 is not obvious from Gisin in view of Iwaoka based on the remarks provided above with regard to claim 1.

V. Claim 12 – 16

Claims 12 – 16 are dependent on claim 10. Applicants assert that claims 12 – 16 are allowable based on an allowable claim 10.

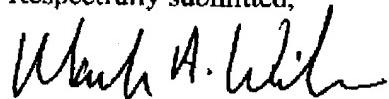
VI. Allowable subject matter

Applicants note with appreciation that claims 17 – 29 are allowed.

Applicants also note that claims 2, 7 – 9, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have not rewritten the claims at this time in view of the above-provided remarks.

Applicants respectfully request reconsideration of the claims in view of the amendments and remarks made herein.

Respectfully submitted,



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